#### (12)特許協力条約に基づいて公開された国際出願

### (19) 世界知的所有権機関 国際事務局



# 

## (43) 国際公開日 2002 年8 月29 日 (29.08.2002)

**PCT** 

## (10) 国際公開番号 WO 02/067379 A1

(51) 国際特許分類7: H01Q 23/00, 5/01, H03H 7/075

(21) 国際出願番号:

PCT/JP02/01637

(22) 国際出願日:

2002年2月22日(22.02.2002)

(25) 国際出願の言語:

日本語

(26) 国際公開の言語:

日本語

(30) 優先権データ:

特顯2001-47902 2001 年2 月23 日 (23.02.2001) JP 特顯2001-47903 2001 年2 月23 日 (23.02.2001) JP

(71) 出願人 (米国を除く全ての指定国について): 株式会社 ヨコオ (YOKOWO CO, LTD.) [JP/JP]: 〒114-8515

東京都 北区滝野川 7 丁目 5 番 1 1 号 Tokyo (JP). 宇部興産株式会社 (UBE INDUSTRIES, LTD.) [JP/JP]; 〒755-8633 山口県 宇部市大字小串 1 9 7 8 番地の 9 6 Yamaguchi (JP).

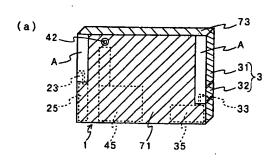
(72) 発明者; および

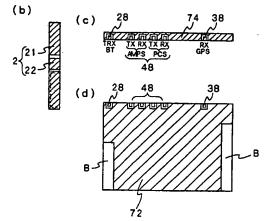
(75) 発明者/出願人 (米国についてのみ): 堀江 凉 (HORIE,Ryo) [JP/JP]; 〒114-8515 東京都北区滝野川 7丁目 5番11号株式会社ヨコオ内 Tokyo (JP). 鈴木 光広 (SUZUKI,Missuhiro) [JP/JP]; 〒114-8515 東京都北区滝野川 7丁目 5番11号株式会社ヨコオ内 Tokyo (JP). 亀田 名三郎 (KAMEDA,Shozaburo) [JP/JP]; 〒114-8515 東京都北区滝野川 7丁目 5番11号株式会社ヨコオ内 Tokyo (JP). 福田 晃一 (FUKUDA,Koichi) [JP/JP]; 〒755-8633 山口県宇部市

/続葉有/

(54) Title: ANTENNA INCORPORATING FILTER

#### (54) 発明の名称: フィルタ内蔵アンテナ



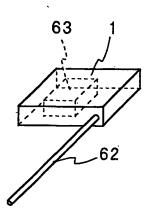


(57) Abstract: At least one filter block (25, 35, 45) is formed in a thin and flat dielectric multilayer structure (21) and fixed with radiation elements (2, 3). Each filter block includes at least one of a low-pass filter, a high-pass filter and a bandeliminating filter. On the surface (one major surface) side and/or the side face of the multilayer structure, at least one radiation element (2, 3) being connected with the filter block is provided and sections (28, 38, 48) for supplying power to the radiation elements are provided on the rear surface of the multilayer structure. Consequently, the antenna and the filter block are integrated and a small surface mountable antenna incorporating a filter and arranged such that signals are not mixed each other even when signals of a plurality of frequency bands are transmitted/received can be obtained.

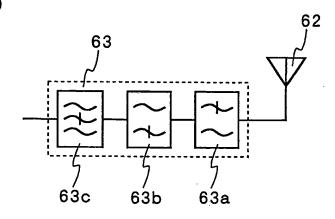
1/6

FIG. 1





(b)



2/6

FIG. 2

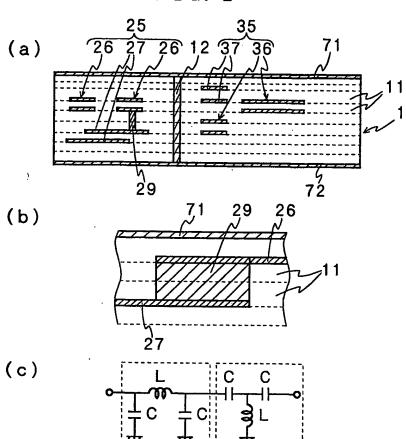
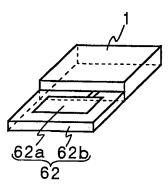


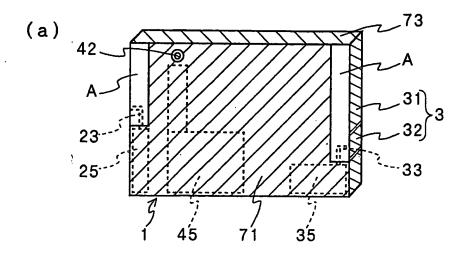
FIG. 3

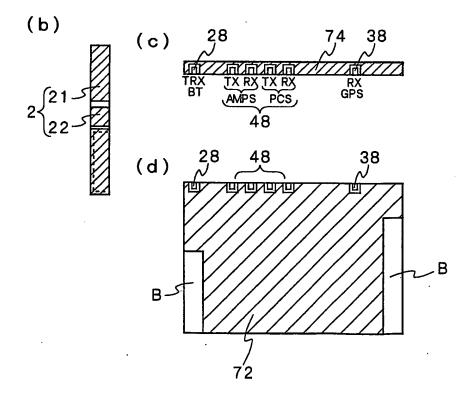
HPF



3/6

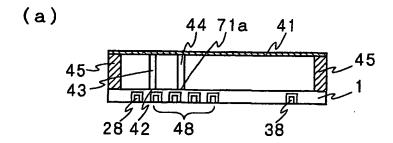
FIG. 4

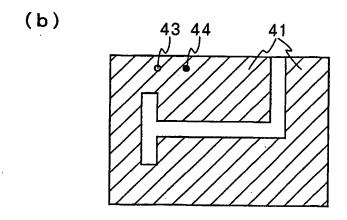




4/6

FIG. 5





5/6

FIG. 6

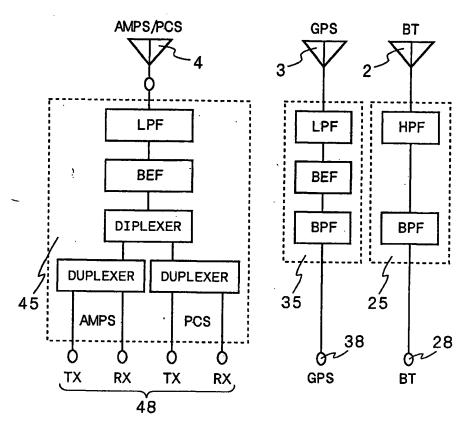
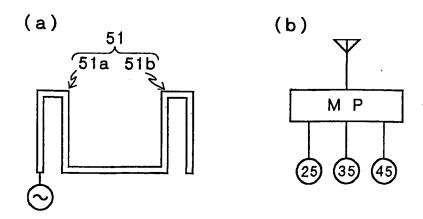


FIG. 7



6/6

FIG. 8

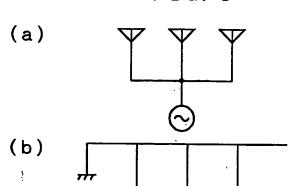


FIG. 9

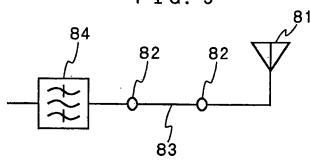


FIG. 10

